Specification:

[0033] Using a stamper comprising a patterned managed heat transfer layer created with 5 pulse laser [ablasion] ablation, and 120 pulse laser [ablasion] ablation, a storage media, e.g., an optical disc, was molded. The laser [ablasion] ablation formed valley sections that were 40 mils (1.02 mm), 20 mils (0.51 mm), and 10 mils (0.25 mm) wide, with all of which being about 240 mils (6.10 mm) in length. The depth of the valleys was controlled by the number of pulses each valley section received from the excimer laser. Areas receiving 5 laser pulses had a depth of 0.4 micrometers, while areas receiving 120 pulses from the laser had a depth of 9.3 micrometers. Optical profilometer images of the features produced on the disc were analyzed using an ADE/Phase-Shift optical profilometer (e.g., a MicroXAM). Figure 7 illustrates features produced by 5 pulse laser ablation pattern, while Figure 8 illustrates features produced by 120 pulse laser ablation pattern. The larger features from the pattern are easily observed with a naked eye. Some of the smaller features are visible only using a microscope, and the smallest features on the stamper were not replicated at all on the disc. That is, patterns may be large and easily visible to the naked eye, or may be microscopic, only detectable using specialized equipment.